

AN INQUIRY

INTO THE

INFLUENCE OF PHYSICAL CAUSES

UPON

THE MENTAL FACULTIES.

*Delivered before a meeting of the American Philosophical Society, held at Philadelphia,
on the Twenty-second of February 1839 by*

BENJAMIN RUSH, M.D.

Philadelphia:
HASWELL, BARRINGTON AND HASWELL,
724 MARKET STREET.

1839.

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Delivered before a meeting of the American Philosophical Society, held at Philadelphia,
on the Twenty-seventh of February, 1786, by

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INTRODUCTORY NOTICE.

IN the numerous discussions which have arisen out of Dr. Gall's discovery of the functions of the brain, many attempts have been made to show that his views were not original. The divisions of that organ into different compartments, and the location in these of different mental faculties, exhibited by various authors, from Aristotle down to John Baptista Porta who published in the seventeenth century, have been confidently referred to, as evidences that Dr. Gall's doctrines are the mere revival of exploded theories. Dr. Gall himself has recorded the opinions and speculations of these authors, and pointed out that while they located the faculties in different parts of the brain from fancy, he did so from observation. But the nearest approach to Dr. Gall's discovery, which has come under my notice, is one that the opponents of Phrenology have not referred to. It is contained in "An Inquiry into the influence of Physical Causes upon the Moral Faculty," delivered by Dr. Benjamin Rush, before a meeting of the American Philosophical Society, held at Philadelphia, on the 27th of February, 1786, published by their request, and dedicated to Dr. Benjamin Franklin. In this Inquiry "coming discoveries" may be said to have cast their shadows before; and Dr. Rush, by observing and faithfully recording the phenomena of nature, has brought to light several important truths which have since been confirmed and elucidated by Phrenology, in a manner that evinces, on his part, extraordinary depth and perspicuity of intellect, combined with the highest moral qualities. The "Moral Faculty," mentioned in his "Inquiry," appears to me to comprehend nearly the three moral sentiments of Benevolence, Veneration, and Conscientiousness, treated of by Phrenologists, each of which is manifested by means of a particular organ, and is influenced by its condition of health or disease; and if the following pages be perused with this explanation in view, the close approximation of Dr. Rush's remarks to the doctrines of Phrenology, will be easily recognised. In many details he differs from, and falls short of the views of Phrenologists, but in the

general conclusion maintained by him, that physical causes influence the moral faculty, the coincidence is complete. I have not been able to find this "Inquiry" printed separately from Dr. Rush's general works; and as it will probably prove interesting to many persons who are not in possession of these volumes, I have been induced to present it in this form to the citizens of the United States. Although all the views contained in it may not have been supported by subsequent investigations, there is so much of sagacity in the author, and of truth in his conclusions, that America may be justly proud of the genius of her son.

GEORGE COMBE,
of Edinburgh.

PHILADELPHIA,
February 15, 1839.

AN INQUIRY, ETC.

GENTLEMEN,

It was for the laudable purpose of exciting a spirit of emulation and inquiry among the members of our body, that the founders of our society instituted an annual oration. The task of preparing, and delivering this exercise, hath devolved, once more, upon me. I have submitted to it, not because I thought myself capable of fulfilling your intentions, but because I wished, by a testimony of my obedience to your requests, to atone for my long absence from the temple of science.

The subject, upon which I am to have the honour of addressing you this evening, is on the influence of physical causes upon the moral faculty.

By the moral faculty I mean a capacity in the human mind of distinguishing and choosing good and evil, or, in other words, virtue and vice. It is a native principle, and though it be capable of improvement by experience and reflection, it is not derived from either of them. St. Paul and Cicero give us the most perfect account of it that is to be found in modern or ancient authors. "For when the Gentiles (says St. Paul,) which have not the law, do by nature the things contained in the law, *these*, having not the law, are a *law* unto themselves ; which show the works of the law written in their hearts, their consciences also, bearing witness, and their thoughts the mean while accusing, or else excusing, another."*

The words of Cicero are as follow : "Est igitur hæc, judices, non scripta, sed nata lex, quam non didicimus, accepimus, legimus, verum ex natura ipsa arripuimus, hausimus, expressimus, ad quam non docti, sed facti, non instituti, sed imbuti sumus."† This faculty is often confounded with conscience, which is a distinct and independent capacity of the mind. This is evident from the passage quoted from the writings of St. Paul, in which conscience is said to

* Rom. i. 14, 15.

† Oratio pro Milone.

be the witness that accuses or excuses us, of a breach of the law written in our hearts. The moral faculty is what the schoolmen call the “*regula regulans* ;” the conscience is their “*regula regulata* ;” or, to speak in more modern terms, the moral faculty performs the office of a lawgiver, while the business of conscience is to perform the duty of a judge. The moral faculty is to the conscience, what taste is to the judgment, and sensation to perception. It is quick in its operations, and like the sensitive plant, acts without reflection, while conscience follows with deliberate steps, and measures all her actions by the unerring square of right and wrong. The moral faculty exercises itself upon the actions of others. It approves, even in books, of the virtues of a Trajan, and disapproves of the vices of a Marius, while conscience confines its operations only to its own actions. These two capacities of the mind are generally in an exact ratio to each other, but they sometimes exist in different degrees in the same person. Hence we often find conscience in its full vigour, with a diminished tone, or total absence of the moral faculty.

It has long been a question among metaphysicians, whether the conscience be seated in the will or in the understanding. The controversy can only be settled by admitting the will to be the seat of the moral faculty, and the understanding to be the seat of the conscience. The mysterious nature of the union of those two moral principles with the will and understanding is a subject foreign to the business of the present inquiry.

As I consider virtue and vice to consist in *action*, and not in opinion, and as this action has its seat in the *will*, and not in the conscience, I shall confine my inquiries chiefly to the influence of physical causes upon that moral power of the mind, which is connected with volition, although many of these causes act likewise upon the conscience, as I shall show hereafter. The state of the moral faculty is visible in actions, which affect the well-being of society. The state of the conscience is invisible, and therefore removed beyond our investigation.

The moral faculty has received different names from different authors. It is the “moral sense” of Dr. Hutchison ; “the sympathy” of Dr. Adam Smith ; the “moral instinct” of Rousseau ; and “the light that lighteth every man that cometh into the world” of St. John. I have adopted the term of moral faculty from Dr. Beattie, because I conceive it conveys, with the most perspicuity, the idea of a capacity in the mind of choosing good and evil.

Our books of medicine contain many records of the effects of physical causes upon the memory, the imagination, and the judgment. In some instances we behold their operation only on one, in others on two, and in many cases, upon the whole of these faculties. Their derangement has received different names, according to the number or nature of the faculties that are affected. The loss of memory has been called "amnesia;" false judgment upon one subject has been called "melancholia;" false judgment upon all subjects has been called "mania;" and a defect of all the three intellectual faculties that have been mentioned has received the name of "amentia." Persons who labour under the derangement, or want, of these faculties of the mind, are considered, very properly, as subjects of medicine; and there are many cases upon record, that prove that their diseases have yielded to the healing art.

In order to illustrate the effects of physical causes upon the moral faculty, it will be necessary *first* to show their effects upon the memory, the imagination, and the judgment; and at the same time to point out the analogy between their operation upon the intellectual faculties of the mind and the moral faculty.

1. Do we observe a connection between the intellectual faculties and the degrees of consistency and firmness of the brain in infancy and childhood? The same connection has been observed between the strength, as well as the progress, of the moral faculty in children.

2. Do we observe a certain size of the brain, and a peculiar cast of features, such as the prominent eye, and the aquiline nose, to be connected with extraordinary portions of genius? We observe a similar connection between the figure and temperament of the body and certain moral qualities. Hence we often ascribe good temper and benevolence to corpulency, and irascibility to sanguineous habits. Cæsar thought himself safe in the friendship of the "sleek-headed" Anthony and Dolabella, but was afraid to trust to the professions of the slender Cassius.

3. Do we observe certain degrees of the intellectual faculties to be hereditary in certain families? The same observation has been frequently extended to moral qualities. Hence we often find certain virtues and vices as peculiar to families, through all their degrees of consanguinity and duration, as a peculiarity of voice, complexion, or shape.

4. Do we observe instances of a total want of memory, imagination, and judgment, either from an original defect in the stamina of the brain, or from the influence of physical causes? The same

unnatural defect is sometimes observed, and probably from the same causes, of a moral faculty. The celebrated Servin, whose character is drawn by the Duke of Sully, in his Memoirs, appears to be an instance of the total absence of the moral faculty, while the chasm produced by this defect, seems to have been filled up by a more than common extension of every other power of his mind. I beg leave to repeat the history of this prodigy of vice and knowledge. "Let the reader represent to himself a man of a genius so lively, and of an understanding so extensive, as rendered him scarce ignorant of any thing that could be known; of so vast and ready a comprehension, that he immediately made himself master of whatever he attempted; and of so prodigious a memory, that he never forgot what he once learned. He possessed all parts of philosophy, and the mathematics, particularly fortification and drawing. Even in theology he was so well skilled, that he was an excellent preacher, whenever he had a mind to exert that talent, and an able disputant for and against the reformed religion, indifferently. He not only understood Greek, Hebrew, and all the languages which we call learned, but also all the different jargons, or modern dialects. He accented and pronounced them so naturally, and so perfectly imitated the gestures and manners both of the several nations of Europe, and the particular provinces of France, that he might have been taken for a native of all, or any, of these countries: and this quality he applied to counterfeit all sorts of persons, wherein he succeeded wonderfully. He was, moreover, the best comedian, and the greatest droll that perhaps ever appeared. He had a genius for poetry, and had wrote many verses. He played upon almost all instruments, was a perfect master of music, and sang most agreeably and justly. He likewise could say mass, for he was of a disposition to do, as well as to know, all things. His body was perfectly well suited to his mind. He was light, nimble, and dexterous, and fit for all exercises. He could ride well, and in dancing, wrestling, and leaping, he was admired. There are not any recreative games that he did not know, and he was skilled in almost all mechanic arts. But now for the reverse of the medal. Here it appeared, that he was treacherous, cruel, cowardly, deceitful, a liar, a cheat, a drunkard, and a glutton, a sharper in play, immersed in every species of vice, a blasphemer, an atheist. In a word, in him might be found all the vices that are contrary to nature, honour, religion, and society, the truth of which he himself evinced with his latest breath: for he died in the flower of his age, in a common brothel, perfectly cor-

rupted by his debaucheries, and expired with the glass in his hand, cursing and denying God.”*

It was probably a state of the human mind such as has been described, that our Saviour alluded to in the disciple who was about to betray him, when he called him “a devil.” Perhaps the essence of depravity, in infernal spirits, consists in their being wholly devoid of a moral faculty. In them the will has probably lost the power of choosing,† as well as the capacity of enjoying moral good. It is true, we read of their trembling in a belief of the existence of a God, and of their anticipating future punishment, by asking whether they were to be tormented before their time : but this is the effect of conscience, and hence arises another argument in favour of this judicial power of the mind being distinct from the moral faculty. It would seem as if the Supreme Being had preserved the moral faculty in man from the ruins of his fall, on purpose to guide him back again to Paradise, and at the same time had constituted the conscience, both in men and fallen spirits, a kind of royalty in his moral empire, on purpose to show his property in all intelligent creatures, and their original resemblance to himself. Perhaps the essence of moral depravity in man consists in a total, but temporary, suspension of the power of conscience. Persons in this situation are emphatically said in the Scriptures to “be past feeling,” and to have their consciences seared with a “hot iron ;” they are likewise said to be “twice dead,” that is, the same torpor, or moral insensibility, has seized both the moral faculty and the conscience.

5. Do we ever observe instances of the existence of only *one* of the three intellectual powers of the mind that have been named, in the absence of the other two ? We observe something of the same kind with respect to the moral faculty. I once knew a man, who discovered no one mark of reason, who possessed the moral sense or faculty in so high a degree, that he spent his whole life in acts of benevolence. He was not only inoffensive (which is not always the case with idiots), but he was kind and affectionate to every body. He had no ideas of time, but what were suggested to him by the

* Vol. iii. p. 216, 217.

† Milton seems to have been of this opinion. Hence, after ascribing repentance to Satan, he makes him declare,

“Farewell remorse ; all good to me is lost,
Evil, be thou my good.”————

returns of the stated periods for public worship, in which he appeared to take great delight. He spent several hours of every day in devotion, in which he was so careful to be private, that he was once found in the most improbable place in the world for that purpose, viz. in an oven.

6. Do we observe the memory, the imagination, and the judgment to be affected by diseases, particularly by madness? Where is the physician, who has not seen the moral faculty affected from the same causes! How often do we see the temper wholly changed by a fit of sickness! And how often do we hear persons of the most delicate virtue utter speeches, in the delirium of a fever, that are offensive to decency or good manners! I have heard a well-attested history of a clergyman of the most exemplary moral character, who spent the last moments of a fever, which deprived him both of his reason and his life, in profane cursing and swearing. I once attended a young woman in a nervous fever, who discovered, after her recovery, a loss of her former habit of veracity. Her memory (a defect of which might be suspected of being the cause of this vice), was in every respect as perfect as it was before the attack of the fever.* The instances of immorality in maniacs, who were formerly distinguished for the opposite character, are so numerous, and well known, that it will not be necessary to select any cases, to establish the truth of the proposition contained under this head.

7. Do we observe any of the three intellectual faculties that have been named enlarged by diseases? Patients in the delirium of a fever, often discover extraordinary flights of imagination, and madmen often astonish us with their wonderful acts of memory. The same enlargement, sometimes, appears in the operations of the moral faculty. I have more than once heard the most sublime discourses of morality in the cell of a hospital, and who has not seen instances of patients in acute diseases discovering degrees of benevolence and integrity, that were not natural to them in the ordinary course of their lives?†

8. Do we ever observe a partial insanity, or false perception on one subject, while the judgment is sound and correct, upon all

* I have selected this case from many others which have come under my notice, in which the moral faculty appeared to be impaired by diseases, particularly by the typhus of Dr. Cullen, and by those species of palsy which affect the brain.

† Xenophon makes Cyrus declare, in his last moments, "That the soul of man, at the hour of death, appears *most divine*, and then foresees something of future events."

others? We perceive, in some instances, a similar defect in the moral faculty. There are persons who are moral in the highest degree as to certain duties, who nevertheless live under the influence of some one vice. I knew an instance of a woman, who was exemplary in her obedience to every command of the moral law, except one. She could not refrain from stealing. What made this vice the more remarkable was, that she was in easy circumstances, and not addicted to extravagance in any thing. Such was her propensity to this vice, that when she could lay her hands upon nothing more valuable, she would often, at the table of a friend, fill her pockets secretly with bread. As a proof that her judgment was not affected by this defect in her moral faculty, she would both confess and lament her crime, when detected in it.

9. Do we observe the imagination in many instances to be affected with apprehensions of dangers that have no existence? In like manner we observe the moral faculty to discover a sensibility to vice, that is by no means proportioned to its degrees of depravity. How often do we see persons labouring under this morbid sensibility of the moral faculty refuse to give a direct answer to a plain question, that related perhaps only to the weather, or to the hour of the day, lest they should wound the peace of their minds by telling a falsehood !

10. Do dreams affect the memory, the imagination, and the judgment? Dreams are nothing but incoherent ideas, occasioned by partial or imperfect sleep. There is a variety in the suspension of the faculties and operations of the mind in this state of the system. In some cases the imagination only is deranged in dreams, in others the memory is affected, and in others the judgment. But there are cases in which the change that is produced in the state of the brain, by means of sleep, affects the moral faculty likewise ; hence we sometimes dream of doing and saying things, when asleep, which we shudder at, as soon as we awake. This supposed defection from virtue exists frequently in dreams, where the memory and judgment are scarcely impaired. It cannot therefore be ascribed to an absence of the exercises of those two powers of the mind.

11. Do we read, in the accounts of travellers, of men, who, in respect of intellectual capacity and enjoyments, are but a few degrees above brutes? We read likewise of a similar degradation of our species, in respect to moral capacity and feeling. Here it will be necessary to remark, that the low degrees of moral perception, that have been discovered in certain African and Russian tribes of men,

no more invalidate our proposition of the universal and essential existence of a moral faculty in the human mind, than the low state of their intellects prove, that reason is not natural to man. Their perceptions of good and evil are in an exact proportion to their intellectual faculties. But I will go further, and admit, with Mr. Locke,* that some savage nations are totally devoid of the moral faculty, yet it will by no means follow, that this was the original constitution of their minds. The appetite for certain aliments is uniform among all mankind. Where is the nation and the individual, in their primitive state of health, to whom bread is not agreeable? But if we should find savages, or individuals, whose stomachs have been so disordered by intemperance as to refuse this simple and wholesome article of diet, shall we assert that this was the original constitution of their appetites? By no means. As well might we assert, because savages destroy their beauty by painting and cutting their faces, that the principles of taste do not exist naturally in the human mind. It is with virtue as with fire. It exists in the mind, as fire does in certain bodies, in a latent or quiescent state. As collision renders the one sensible, so education renders the other visible. It would be as absurd to maintain, because olives become agreeable to many people from habit, that we have no natural appetites for any other kind of food, as to assert that any part of the human species exist without a moral principle, because in some of them it has wanted causes to excite it into action, or has been perverted by example. There are appetites that are wholly artificial. There are tastes so entirely vitiated, as to perceive beauty in deformity. There are torpid and unnatural passions. Why, under certain unfavourable circumstances, may there not exist also a moral faculty, in a state of sleep, or subject to mistakes?

The only apology I shall make, for presuming to differ from that justly celebrated oracle,† who first unfolded to us a map of the intellectual world, shall be, that the eagle eye of genius often darts its views beyond the notice of facts, which are accommodated to the slender organs of perception of men, who possess no other talent than that of observation.

It is not surprising, that Mr. Locke has confounded this moral principle with *reason*, or that Lord Shaftsbury has confounded it with *taste*, since all three of these faculties agree in the objects of

* Essay concerning the Human Understanding, Book I. chap. 3.

† Mr. Locke.

their approbation, notwithstanding they exist in the mind independently of each other. The favourable influence, which the progress of science and taste has had upon the morals, can be ascribed to nothing else, but to the perfect union that subsists in nature between the dictates of reason, of taste, and of the moral faculty. Why has the spirit of humanity made such rapid progress for some years past in the courts of Europe? It is because kings and their ministers have been taught to *reason* upon philosophical subjects. Why have indecency and profanity been banished from the stage in London and Paris? It is because immorality is an offence against the highly cultivated *taste* of the French and English nations.

It must afford great pleasure to the lovers of virtue, to behold the depth and extent of this moral principle in the human mind. Happily for the human race, the intimations of duty and the road to happiness are not left to the slow operations or doubtful inductions of reason, nor to the precarious decisions of taste. Hence we often find the moral faculty in a state of vigour in persons, in whom reason and taste exist in a weak, or in an uncultivated state. It is worthy of notice, likewise, that while *second* thoughts are best in matters of judgment, *first* thoughts are always to be preferred in matters that relate to morality. *Second* thoughts, in these cases, are generally parlies between duty and corrupted inclinations. Hence Rousseau has justly said, that "a well regulated moral instinct is the surest guide to happiness."

It must afford equal pleasure to the lovers of virtue to behold, that our moral conduct and happiness are not committed to the determination of a single legislative power. The conscience, like a wise and faithful legislative council, performs the office of a check upon the moral faculty, and thus prevents the fatal consequences of immoral actions.

An objection, I foresee, will arise to the doctrine of the influence of physical causes upon the moral faculty, from its being supposed to favour the opinion of the *materiality* of the soul. But I do not see that this doctrine obliges us to decide upon the question of the nature of the soul, any more than the facts which prove the influence of physical causes upon the memory, the imagination, or the judgment. I shall, however, remark upon this subject, that the writers in favour of the *immortality* of the soul have done that truth great injury, by connecting it necessarily with its *immateriality*. The immortality of the soul depends upon the *will* of the Deity, and not upon the supposed properties of spirit. Matter is in its own nature

as immortal as spirit. It is resolvable by heat and mixture into a variety of forms; but it requires the same Almighty hand to annihilate it, that it did to create it. I know of no arguments to prove the immortality of the soul, but such as are derived from the Christian revelation.* It would be as reasonable to assert that the bason of the ocean is immortal, from the greatness of its capacity to hold water; or that we are to live for ever in this world, because we are afraid of dying; as to maintain the immortality of the soul, from the greatness of its capacity for knowledge and happiness, or from its dread of annihilation.

I remarked, in the beginning of this discourse, that persons who are deprived of the just exercise of memory, imagination, or judgment, were proper subjects of medicine; and that there are many cases upon record which prove, that the diseases from the derangement of these faculties have yielded to the healing art.

It is perhaps only because the diseases of the moral faculty have not been traced to a connection with physical causes, that medical writers have neglected to give them a place in their systems of nosology, and that so few attempts have been hitherto made to lessen or remove them, by physical as well as rational and moral remedies.

I shall not attempt to derive any support to my opinions, from the analogy of the influence of physical causes upon the temper and conduct of brute animals. The facts which I shall produce in favour of the action of these causes upon morals in the human species, will, I hope, render unnecessary the arguments that might be drawn from that quarter.

I am aware, that in venturing upon this subject I step upon untrodden ground. I feel as Æneas did, when he was about to enter the gates of Avernus, but without a sybil to instruct me in the mysteries that are before me. I foresee, that men who have been educated in the mechanical habits of adopting popular or established opinions will revolt at the doctrine I am about to deliver, while men of sense and genius will hear my propositions with candour, and if they do not adopt them, will commend that boldness of inquiry, that prompted me to broach them.

I shall begin with an attempt to supply the defects of nosological writers, by naming the partial or weakened action of the moral faculty, MICRONOMIA. The total absence of this faculty I shall call

* "Life and immortality are brought to light *only* through the gospel."

2 Tim. i. 10.

ANOMIA. By the law, referred to in these new genera of *vesaniæ*, I mean the law of nature written in the human heart, and which I formerly quoted from the writings of St. Paul.

In treating of the effects of physical causes upon the moral faculty, it might help to extend our ideas upon this subject, to reduce virtues and vices to certain species, and to point out the effects of particular species of virtue and vice; but this would lead us into a field too extensive for the limits of the present inquiry. I shall only hint at a few cases, and have no doubt but the ingenuity of my auditors will supply my silence, by applying the rest.

It is immaterial, whether the physical causes that are to be enumerated act upon the moral faculty through the medium of the senses, the passions, the memory, or the imagination. Their influence is equally certain, whether they act as remote, predisposing, or occasional causes.

1. The effects of CLIMATE upon the moral faculty claim our first attention. Not only individuals, but nations, derive a considerable part of their moral, as well as intellectual character, from the different portions they enjoy of the rays of the sun. Irascibility, levity, timidity, and indolence, tempered with occasional emotions of benevolence, are the moral qualities of the inhabitants of warm climates, while selfishness, tempered with sincerity and integrity, form the moral character of the inhabitants of cold countries. The state of the weather, and the seasons of the year also, have a visible effect upon moral sensibility. The month of November, in Great Britain, rendered gloomy by constant fogs and rains, has been thought to favour the perpetration of the worst species of murder, while the vernal sun, in middle latitudes, has been as generally remarked for producing gentleness and benevolence.

2. The effects of DIET upon the moral faculty are more certain, though less attended to, than the effects of climate. "Fullness of bread," we are told, was one of the predisposing causes of the vices of the Cities of the Plain. The fasts so often inculcated among the Jews were intended to lessen the incentives to vice; for pride, cruelty, and sensuality, are as much the natural consequences of luxury, as apoplexies and palsies. But the *quality* as well as the quantity of aliment has an influence upon morals; hence we find the moral diseases that have been mentioned are most frequently the offspring of animal food. The prophet Isaiah seems to have been sensible of this, when he ascribes such salutary effects to a temperate and vegetable diet. "Butter and honey shall he eat," says he,

“*that* he may know to refuse the evil, and to choose the good.” But we have many facts which prove the efficacy of a vegetable diet upon the passions. Dr. Arbuthnot assures us, that he cured several patients of irascible tempers, by nothing but a prescription of this simple and temperate regimen.

3. The effects of CERTAIN DRINKS upon the moral faculty are not less observable, than upon the intellectual powers of the mind. Fermented liquors, of a good quality, and taken in a moderate quantity, are favourable to the virtues of candour, benevolence, and generosity; but when they are taken in excess, or when they are of a bad quality, and taken even in a moderate quantity, they seldom fail of rousing every latent spark of vice into action. The last of these facts is so notorious, that when a man is observed to be ill-natured or quarrelsome in Portugal, after drinking, it is common in that country to say, that “he has drunken bad wine.” While occasional fits of intoxication produce ill-temper in many people, habitual drunkenness (which is generally produced by distilled spirits) never fails to eradicate veracity and integrity from the human mind. Perhaps this may be the reason why the Spaniards, in ancient times, never admitted a man’s evidence in a court of justice, who had been convicted of drunkenness. Water is the universal sedative of turbulent passions; it not only promotes a general equanimity of temper, but it composes anger. I have heard several well-attested cases, of a draught of cold water having suddenly composed this violent passion, after the usual remedies of reason had been applied to no purpose.

4. EXTREME HUNGER produces the most unfriendly effects upon moral sensibility. It is immaterial, whether it act by inducing a relaxation of the solids, or an acrimony of the fluids, or by the combined operations of both those physical causes. The Indians in this country whet their appetites for that savage species of war, which is peculiar to them, by the stimulous of hunger; hence, we are told, they always return meagre and emaciated from their military excursions. In civilized life we often behold this sensation to overbalance the restraints of moral feeling; and perhaps this may be the reason why poverty, which is the most frequent parent of hunger, disposes so generally to theft; for the character of hunger is taken from that vice; it belongs to it “to break through stone walls.” So much does this sensation predominate over reason and moral feeling, that cardinal de Retz suggests to politicians, never to risk a motion in a popular assembly, however wise or just it may be, immediately before dinner. That temper must be uncommonly

guarded, which is not disturbed by long abstinence from food. One of the worthiest men I ever knew, who made his breakfast his principal meal, was peevish and disagreeable to his friends and family, from the time he left his bed till he sat down to his morning repast; after which, cheerfulness sparkled in his countenance, and he became the delight of all around him.

5. I hinted formerly, in proving the analogy between the effects of DISEASES upon the intellects, and upon the moral faculty, that the latter was frequently impaired by fevers and madness. I beg leave to add further upon this head, that not only madness, but the hysteria and hypochondriasis, as well as all those states of the body, whether idiopathic or symptomatic, which are accompanied with preternatural irritability—sensibility—torpor—stupor or mobility of the nervous system, dispose to vice, either of the body or of the mind. It is in vain to attack these vices with lectures upon morality. They are only to be cured by medicine,—particularly by exercise,—the cold bath,—and by a cold or warm atmosphere. The young woman, whose case I mentioned formerly, that lost her habit of veracity by a nervous fever, recovered this virtue, as soon as her system recovered its natural tone, from the cold weather which happily succeeded her fever.*

6. Idleness is the parent of every vice. It is mentioned in the Old Testament as another of the predisposing causes of the vices of the Cities of the Plain. Labor of all kinds favors and facilitates the practice of virtue. The country life is happy, chiefly because its laborious employments are favourable to virtue, and un-

* There is a morbid state of excitability in the body during the convalescence from fever, which is intimately connected with an undue propensity to venereal pleasures. I have met with several instances of it. The marriage of the celebrated Mr. Howard to a woman who was twice as old as himself, and very sickly, has been ascribed by his biographer, Dr. Aiken, to *gratitude* for her great attention to him in a fit of sickness. I am disposed to ascribe it to a sudden paroxysm of another passion, which as a religious man, he could not gratify in any other, than in a lawful way. I have heard of two young clergymen who married the women who had nursed them in fits of sickness. In both cases there was great inequality in their years, and condition in life. Their motive was, probably, the same as that which I have attributed to Mr. Howard. Dr. Patrick Russel takes notice of an uncommon degree of venereal excitability which followed attacks of the plague at Messina, in 1743, in all ranks of people. Marriages, he says, were more frequent after it than usual, and virgins were, in some instances violated, who died of that disease, by persons who had just recovered from it.

friendly to vice. It is a common practice, I have been told, for the planters in the southern states, to consign a house slave, who has become vicious from idleness, to the drudgery of the field, in order to reform him. The bridewells and workhouses of all civilized countries prove, that LABOR is not only a very severe, but the most benevolent of all punishments, in as much as it is one of the most suitable means of reformation. Mr. Howard tells us in his History of Prisons, that in Holland it is a common saying, "Make men work and you will make them honest." And over the rasp and spin-house at Grœningen, this sentiment is expressed (he tells us) by a happy motto :

"Vitiorum semina—otium—labore exhauriendum."

The effects of steady labour in early life, in creating virtuous habits, is still more remarkable. The late Anthony Benezet of this city, whose benevolence was the sentinel of the virtue, as well as of the happiness of his country, made it a constant rule in binding out poor children, to avoid putting them into wealthy families, but always preferred masters for them who worked themselves, and who obliged these children to work in their presence. If the habits of virtue, contracted by means of this apprenticeship to labour, are purely mechanical, their effects are, nevertheless, the same upon the happiness of society, as if they flowed from principle. The mind, moreover, when preserved by these means from weeds, becomes a more mellow soil afterwards, for moral and rational improvement.

7. The effects of EXCESSIVE SLEEP are intimately connected with the effects of idleness upon the moral faculty ; hence we find that moderate, and even scanty portions of sleep, in every part of the world, have been found to be friendly, not only to health and long life, but in many instances to morality. The practice of the monks, who often sleep upon a floor, and who generally rise with the sun, for the sake of mortifying their sensual appetites, is certainly founded in wisdom, and has often produced the most salutary moral effects.

8. The effects of BODILY PAIN upon the moral, are not less remarkable than upon the intellectual powers of the mind. The late Dr. Gregory, of the University of Edinburgh, used to tell his pupils, that he always found his perceptions quicker in a fit of the gout, than at any other time. The pangs which attend the dissolution of the body, are often accompanied with conceptions and expressions

upon the most ordinary subjects, that discover an uncommon elevation of the intellectual powers. The effects of bodily pain are exactly the same in rousing and directing the moral faculty. Bodily pain, we find, was one of the remedies employed in the Old Testament, for extirpating vice and promoting virtue : and Mr. Howard tells us, that he saw it employed successfully as a means of reformation, in one of the prisons which he visited. If pain has a physical tendency to cure vice, I submit it to the consideration of parents and legislators, whether moderate degrees of corporal punishments, inflicted for a great length of time, would not be more medicinal in their effects, than the violent degrees of them, which are of short duration.

9. Too much cannot be said in favour of CLEANLINESS, as a physical means of promoting virtue. The writings of Moses have been called, by military men, the best "orderly book" in the world. In every part of them we find cleanliness inculcated with as much zeal, as if it was part of the moral, instead of the Levitical law. Now, it is well-known, that the principal design of every precept and rite of the ceremonial parts of the Jewish religion, was to prevent vice, and to promote virtue. All writers upon the leprosy, take notice of its connection with a certain vice. To this disease gross animal food, particularly swine's flesh, and a dirty skin, have been thought to be predisposing causes—hence the reason, probably, why pork was forbidden, and why ablutions of the body and limbs were so frequently inculcated by the Jewish law. Sir John Pringle's remarks, in his oration upon Captain Cook's Voyage, delivered before the Royal Society in London, are very pertinent to this part of our subject :—"Cleanliness (says he) is conducive to health, but is it not obvious, that it also tends to good order and other virtues? Such (meaning the ship's crew) as were made more cleanly, became more sober, more orderly, and more attentive to duty." The benefit to be derived by parents and schoolmasters from attending to these facts, is too obvious to be mentioned.

10. I hope I shall be excused in placing SOLITUDE among the physical causes which influence the moral faculty, when I add, that I confine its effects to persons who are irreclaimable by rational or moral remedies. Mr. Howard informs us, that the chaplain of the prison at Liege in Germany assured him, "that the most refractory and turbulent spirits, became tractable and submissive, by being closely confined for four or five days." In bodies that are predisposed to vice, the stimulus of cheerful, but much more of profane

society and conversation, upon the animal spirits, becomes an exciting cause, and like the stroke of the flint upon the steel, renders the sparks of vice both active and visible. By removing men out of the reach of this exciting cause, they are often reformed, especially if they are confined long enough to produce a sufficient chasm in their habits of vice. Where the benefit of reflection, and instruction from books, can be added to solitude and confinement, their good effects are still more certain. To this philosophers and poets in every age have assented, by describing the life of a hermit as a life of passive virtue.

11. Connected with solitude, as a mechanical means of promoting virtue, SILENCE deserves to be mentioned in this place. The late Dr. Fothergill, in his plan of education for that benevolent institution at Ackworth, which was the last care of his useful life, says every thing that can be said in favour of this necessary discipline, in the following words: "To habituate children from their early infancy, to silence and attention, is of the greatest advantage to them, not only as a preparative to their advancement in a religious life, but as the groundwork of a well-cultivated understanding. To have the active minds of children put under a kind of restraint—to be accustomed to turn their attention from external objects, and habituated to a degree of abstracted quiet, is a matter of great consequence, and lasting benefit to them. Although it cannot be supposed, that young and active minds are always engaged in silence as they ought to be, yet to be accustomed thus to quietness, is no small point gained towards fixing a habit of patience, and recollection, which seldom forsakes those who have been properly instructed in this entrance of the school of wisdom, during the residue of their days."

For the purpose of acquiring this branch of education, children cannot associate too early, nor too often with their parents, or with their superiors in age, rank, and wisdom.

12. The effects of music upon the moral faculty, have been felt and recorded in every country. Hence we are able to discover the virtues and vices of different nations, by their tunes, as certainly as by their laws. The effects of music, when simply mechanical, upon the passions, are powerful and extensive. But it remains yet to determine the degrees of moral ecstasy, that may be produced by an attack upon the ear, the reason, and the moral principle, at the same time, by the combined powers of music and eloquence.

13. The ELOQUENCE of the PULPIT is nearly allied to music in its

effects upon the moral faculty. It is true, there can be no permanent change in the temper and moral conduct of a man, that is not derived from the understanding and the will; but we must remember that these two powers of the mind are most assailable, when they are attacked through the avenue of the passions; and these, we know, when agitated by the powers of eloquence, exert a mechanical action upon every power of the soul. Hence we find, in every age and country where Christianity has been propagated, the most accomplished orators have generally been the most successful reformers of mankind. There must be a defect of eloquence in a preacher, who, with the resources for oratory which are contained in the Old and New Testaments, does not produce in every man who hears him at least a temporary love of virtue. I grant that the eloquence of the pulpit alone cannot change men into Christians, but it certainly possesses the power of changing brutes into men. Could the eloquence of the stage be properly directed, it is impossible to conceive the extent of its mechanical effects upon morals. The language and imagery of a Shakspeare, upon moral and religious subjects, poured upon the passions and the senses, in all the beauty and variety of dramatic representation; who could resist, or describe their effects?

14. ODOURS of various kinds have been observed to act in the most sensible manner upon the moral faculty. Brydone tells us, upon the authority of a celebrated philosopher in Italy, that the peculiar wickedness of the people who live in the neighbourhood of *Ætna* and *Vesuvius*, is occasioned chiefly by the smell of the sulphur, and of the hot exhalations which are constantly discharged from those volcanoes. Agreeable odours seldom fail to inspire serenity, and to compose the angry spirits. Hence the pleasure, and one of the advantages, of a flower-garden. The smoke of tobacco is likewise of a composing nature, and tends not only to produce what is called a train in perception, but to hush the agitated passions into silence and order. Hence the practice of connecting the pipe or cigar and the bottle together, in public company.

15. It will be sufficient only to mention **LIGHT** and **DARKNESS**, to suggest facts in favour of the influence of each of them upon moral sensibility. How often do the peevish complaints of the night, in sickness, give way to the composing rays of the light of the morning? Othello cannot murder Desdemona by candle-light, and who has not felt the effects of a blazing fire upon the gentle passions?*

* The temperature of the air has a considerable influence upon moral feeling. Henry the Third of France was always ill-humoured, and sometimes cruel, in

16. It is to be lamented, that no experiments have as yet been made, to determine the effects of all the different species of AIRS, which chemistry has lately discovered, upon the moral faculty. I have authority, from actual experiments, only to declare, that dephlogisticated air, when taken into the lungs, produces cheerfulness, gentleness, and serenity of mind.

17. What shall we say of the effects of MEDICINES upon the moral faculty? That many substances in the materia medica act upon the intellects is well known to physicians. Why should it be thought impossible for medicines to act in like manner upon the moral faculty? May not the earth contain, in its bowels, or upon its surface, antidotes? But I will not blend facts with conjectures. Clouds and darkness still hang upon this part of my subject.

Let it not be suspected, from any thing that I have delivered, that I suppose the influence of physical causes upon the moral faculty renders the agency of divine influence unnecessary to our moral happiness. I only maintain, that the operations of the divine government are carried on in the moral, as in the natural world, by the instrumentality of second causes. I have only trodden in the footsteps of the inspired writers ; for most of the physical causes I have enumerated are connected with moral precepts, or have been used as the means of reformation from vice, in the Old and New Testaments. To the cases that have been mentioned, I shall only add, that Nebuchadnezzar was cured of his pride, by means of solitude and a vegetable diet. Saul was cured of his evil spirit, by means of David's harp, and St. Paul expressly says, "I keep my body under, and bring it into subjection, lest that by any means, when I have preached to others, I myself should be a cast-away." But I will go one step further, and add, in favour of divine influence upon the moral principle, that in those extraordinary cases, where bad men are suddenly reformed, without the instrumentality of physical, moral or rational causes, I believe that the organization of those parts of the body, in which the faculties of the mind are seated, undergoes a physical change ;* and hence the expression of a "new creature,"

cold weather. There is a damp air which comes from the sea in Northumberland county in England, which is known by the name of the *seafret*, from its inducing fretfulness in the temper.

* St. Paul was suddenly transformed from a persecutor into a man of a gentle and amiable spirit. The manner in which this change was effected upon his mind, he tells us in the following words: "Neither circumcision availeth any

which is made use of in the Scriptures to denote this change, is proper in a literal, as well as a figurative sense. It is probably the beginning of that perfect renovation of the human body, which is predicted by St. Paul in the following words : "For our conversation is in heaven, from whence we look for the Saviour, who shall change our vile bodies, that they may be fashioned according to his own glorious body." I shall not pause to defend myself against the charge of enthusiasm in this place ; for the age is at length arrived, so devoutly wished for by Dr. Cheyne, in which men will not be deterred in their researches after truth, by the terror of odious or unpopular names.

I cannot help remarking under this head, that if the conditions of those parts of the human body which are connected with the human soul influence morals, the same reason may be given for a virtuous education, that has been admitted for teaching music, and the pronunciation of foreign languages, in the early and yielding state of those organs which form the voice and speech. Such is the effect of a moral education, that we often see its fruits in advanced stages of life, after the religious principles which were connected with it have been renounced ; just as we perceive the same care in a surgeon in his attendance upon patients, after the sympathy which first produced this care has ceased to operate upon his mind. The boasted morality of the deists is, I believe, in most cases, the offspring of habits, produced originally by the principles and precepts of christianity. Hence appears the wisdom of Solomon's advice, "Train up a child in the way he should go, and when he is old he will not," I had almost said, he cannot, "depart from it."

Thus have I enumerated the principal causes which act mechanically upon morals. If, from the combined action of physical powers that are opposed to each other, the moral faculty should become stationary, or if the virtue or vice produced by them should form a neutral quality, composed of both of them, I hope it will not call in question the truth of our general propositions. I have only mentioned the effects of physical causes in a simple state.*

thing, nor uncircumcision, but a new creature. From henceforth let no man trouble me ; for I bear in *my body* the marks of our Lord Jesus." Galatians vi. 15, 17.

* The doctrine of the influence of physical causes on morals is happily calculated to beget charity towards the failings of our fellow-creatures. Our duty to practise this virtue is enforced by motives drawn from science, as well as from the precepts of christianity.

It might help to enlarge our ideas upon this subject, to take notice of the influence of the different stages of society, of agriculture and commerce, of soil and situation, of the different degrees of cultivation of taste, and of the intellectual powers, of the different forms of government, and, lastly, of the different professions and occupations of mankind, upon the moral faculty ; but as these act indirectly only, and by the intervention of causes that are unconnected with matter, I conceive they are foreign to the business of the present inquiry. If they should vary the action of the simple physical causes in any degree, I hope it will not call in question the truth of our general propositions, any more than the compound action of physical powers that are opposed to each other. There remain but a few more causes which are of a compound nature, but they are so nearly related to those which are purely mechanical, that I should beg leave to trespass upon your patience, by giving them a place in my oration.

The effects of imitation, habit, and association, upon morals, would furnish ample matter for investigation. Considering how much the shape, texture, and conditions of the human body influence morals, I submit it to the consideration of the ingenious, whether, in our endeavours to imitate moral examples, some advantage may not be derived, from our copying the features and external manners of the originals. What makes the success of this experiment probable is, that we generally find men, whose faces resemble each other, have the same manners and dispositions. I infer the possibility of success in an attempt to imitate originals in a manner that has been mentioned, from the facility with which domestics acquire a resemblance to their masters and mistresses, not only in manners, but in countenance, in those cases where they are tied to them by respect and affection. Husbands and wives also, where they possess the same species of face, under circumstances of mutual attachment often acquire a resemblance to each other.

From the general detestation in which hypocrisy is held, both by good and bad men, the mechanical effects of habit upon virtue have not been sufficiently explored. There are, I am persuaded, many instances, where virtues have been assumed by accident or necessity, which have become real from habit, and afterwards derived their nourishment from the heart. Hence the propriety of Hamlet's advice to his mother :

"Assume a virtue, if you have it not.

That monster, Custom, who all sense doth eat

Of habits evil, is angel yet in this,
 That to the use of actions fair and good
 He likewise gives a frock or livery,
 That aptly is put on. Refrain to-night,
 And that shall lend a kind of easiness
 To the next abstinence ; the next more easy :
 For use can almost change the stamp of nature,
 And master even the devil, or throw him out,
 With wondrous potency.”

The influence of ASSOCIATION upon morals opens an ample field for inquiry. It is from this principle, that we explain the reformation from theft and drunkenness in servants, which we sometimes see produced by a draught of spirits, in which tartar emetic had been secretly dissolved. The recollection of the pain and sickness excited by the emetic, naturally associates itself with the spirits, so as to render them both equally the objects of aversion. It is by calling in this principle only, that we can account for the conduct of Moses, in grinding the golden calf into a powder, and afterwards dissolving it (probably by means of *hepar sulphuris*,) in water, and compelling the children of Israel to drink of it, as a punishment for their idolatry. This mixture is bitter and nauseating in the highest degree. An inclination to idolatry, therefore, could not be felt, without being associated with the remembrance of this disagreeable mixture, and of course being rejected, with equal abhorrence. The benefit of corporal punishments, when they are of a short duration, depends in part upon their being connected, by time and place, with the crimes for which they are inflicted. Quick as the thunder follows the lightning, if it were possible, should punishments follow the crimes, and the advantage of association would be more certain, if the spot where they were committed were made the theatre of their expiation. It is from the effects of this association, probably, that the change of place and company, produced by exile and transportation, has so often reclaimed bad men, after moral, rational, and physical means of reformation had been used to no purpose.

As SENSIBILITY is the avenue to the moral faculty, every thing which tends to diminish it tends also to injure morals. The Romans owed much of their corruption to the sights of the contests of their gladiators, and of criminals, with wild beasts. For these reasons, executions should never be public. Indeed, I believe there are no public punishments of any kind, that do not harden the hearts of

spectators, and thereby lessen the natural horror which all crimes at first excite in the human mind.

CRUELTY to brute animals is another means of destroying moral sensibility. The ferocity of savages has been ascribed in part to their peculiar mode of subsistence. Mr. Hogarth points out, in his ingenious prints, the connection between cruelty to brute animals in youth, and murder in manhood. The emperor Domitian prepared his mind, by the amusement of killing flies, for all those bloody crimes which afterwards disgraced his reign. I am so perfectly satisfied of the truth of a connection between morals and humanity to brutes, that I shall find it difficult to restrain my idolatry for that legislature, that shall first establish a system of laws to defend them from outrage and oppression.

In order to preserve the vigour of the moral faculty, it is of the utmost consequence to keep young people as ignorant as possible of those crimes that are generally thought most disgraceful to human nature. Suicide, I believe, is often propagated by means of newspapers. For this reason, I should be glad to see the proceedings of our courts kept from the public eye, when they expose or punish monstrous vices.

The last mechanical method of promoting morality that I shall mention, is to keep sensibility alive, by a familiarity with scenes of distress from poverty and disease. Compassion never awakens in the human bosom, without being accompanied by a train of sister virtues. Hence the wise man justly remarks, that "By the sadness of the countenance, the heart is made better."

A late French writer in his prediction of events that are to happen in the year 4000, says, "That mankind in that era shall be so far improved by religion and government, that the sick and the dying shall no longer be thrown, together with the dead, into splendid houses, but shall be relieved and protected in a connection with their families and society." For the honor of humanity, an institution,* destined for that distant period, has lately been founded in this city, that shall perpetuate the year 1786 in the history of Pennsylvania. Here the feeling heart, the tearful eye, and the charitable hand, may always be connected together, and the flame of sympathy, instead of being extinguished in taxes, or expiring in a solitary blaze by a single contribution, may be kept alive by constant exercise. There is a necessary connection between animal sympathy and good morals.

* A public dispensary.

The priest and the Levite, in the New Testament, would probably have relieved the poor man who fell among thieves, had accident brought them near enough to his wounds. The unfortunate Mrs. Bellamy was rescued from the dreadful purpose of drowning herself, by nothing but the distress of a child, rending the air with its cries for bread. It is probably owing, in some measure, to the connection between good morals and sympathy, that the fair sex, in every age and country, have been more distinguished for virtue than men ; for how seldom do we hear of a woman devoid of humanity ?

Lastly, **ATTRACTION**, **COMPOSITION**, and **DECOMPOSITION**, belong to the passions as well as to matter. Vices of the same species attract each other with the most force—hence the bad consequences of crowding young men (whose propensities are generally the same) under one roof, in our modern plans of education. The effects of composition and decomposition upon vices, appear in the meanness of the school boy, being often cured by the prodigality of a military life, and by the precipitation of avarice, which is often produced by ambition and love.*

If physical causes influence morals in the manner we have described, may they not also influence religious principles and opinions ?—I answer in the affirmative ; and I have authority, from the records of physic, as well as from my own observations, to declare, that religious melancholy and madness, in all their variety of species, yield with more facility to medicine, than simply to polemical discourses, or to casuistical advice. But this subject is foreign to the business of the present inquiry.

From a review of our subject, we are led to contemplate with admiration, the curious structure of the human mind. How distinct are the number, and yet how united ! How subordinate and yet how coequal are all its faculties ! How wonderful is the action of the mind upon the body ! Of the body upon the mind !—And of the divine spirit upon both ! What a mystery is the mind of man to itself !—O ! nature !—Or to speak more properly,—O !

* A citizen of Philadelphia had made many unsuccessful attempts to cure his wife of drinking ardent spirits. At length, despairing of her reformation, he purchased a hogshead of rum, and after tapping it, left the key in the door where he had placed it, as if he had forgotten it. His design was to give her an opportunity of destroying herself, by drinking as much as she pleased. The woman suspected this to be his design—and suddenly left off drinking. Anger here became the antidote of intemperance.

THOU GOD OF NATURE !—In vain do we attempt to scan THY immensity, or to comprehend THY various modes of existence, when a single particle of light issued from THYSELF, and kindled into intelligence in the bosom of man, thus dazzles and confounds our understandings !

The extent of the moral powers and habits in man is unknown. It is not improbable, but the human mind contains principles of virtue, which have never yet been excited into action. We behold with surprise the versatility of the human body in the exploits of tumblers and rope-dancers. Even the agility of a wild beast has been demonstrated in a girl of France, and an amphibious nature has been discovered in the human species, in a young man in Spain. We listen with astonishment to the accounts of the *memories* of Mithridates, Cyrus, and Servin. We feel a veneration bordering upon divine homage, in contemplating the stupendous *understandings* of Lord Verulam and Sir Isaac Newton ; and our eyes grow dim, in attempting to pursue Shakspeare and Milton in their immeasurable flights of *imagination*. And if the history of mankind does not furnish similar instances of the versatility and perfection of our species in virtue, it is because the moral faculty has been the subject of less culture and fewer experiments than the body, and the intellectual powers of the mind. From what has been said, the reason of this is obvious. Hitherto the cultivation of the moral faculty has been the business of parents, schoolmasters and divines.* But if the principles, we have laid down, be just, the improvement and extension of this principle should be equally the business of the legislator—the natural philosopher—and the physician ; and a physical regimen should as necessarily accompany a moral precept, as directions with respect to the air—exercise—and diet, generally accompany prescriptions for the consumption and the gout. To encourage us to undertake experiments for the improvement of morals, let us recollect the success of philosophy in lessening the number, and mitigating the violence of incurable diseases. The in-

* The people commonly called Quakers, and the Methodists, make use of the greatest number of physical remedies in their religious and moral discipline, of any sects of Christians ; and hence we find them every where distinguished for their good morals. There are several excellent *physical* institutions in other churches ; and if they do not produce the same moral effects that we observe from physical institutions among those two modern sects, it must be ascribed to their being more neglected by the members of those churches.

termitting fever, which proved fatal to two of the monarchs of Britain, is now under absolute subjection to medicine. Continual fevers are much less fatal than formerly. The small-pox is disarmed of its mortality by inoculation, and even the tetanus and the cancer have lately received a check in their ravages upon mankind. But medicine has done more. It has penetrated the deep and gloomy abyss of death, and acquired fresh honours in his cold embraces.—Witness the many hundred people who have lately been brought back to life, by the successful efforts of the humane societies, which are now established in many parts of Europe, and in some parts of America. Should the same industry and ingenuity, which have produced these triumphs of medicine over diseases and death, be applied to the moral science, it is highly probable, that most of those baneful vices, which deform the human breast, and convulse the nations of the earth, might be banished from the world. I am not so sanguine as to suppose, that it is possible for man to acquire so much perfection from science, religion, liberty and good government, as to cease to be mortal ; but I am fully persuaded, that from the combined action of causes, which operate at once upon the reason, the moral faculty, the passions, the senses, the brain, the nerves, the blood and the heart, it is possible to produce such a change in his moral character, as shall raise him to a resemblance of angels—nay more, to the likeness of God himself. The state of Pennsylvania still deplores the loss of a man, in whom not only reason and revelation, but many of the physical causes that have been enumerated, concurred to produce such attainments in moral excellency, as have seldom appeared in a human being. This amiable citizen, considered his fellow-creature, man, as God's extract, from his own works ; and, whether this image of himself, was cut out from ebony or copper—whether he spoke his own or a foreign language—or whether he worshipped his Maker with ceremonies, or without them, he still considered him as a brother, and equally the object of his benevolence. Poets and historians, who are to live hereafter, to you I commit his panegyric ; and when you hear of a law for abolishing slavery in each of the American states, such as was passed in Pennsylvania, in the year 1780—when you hear of the kings and queens of Europe, publishing edicts for abolishing the trade in human souls—and lastly, when you hear of schools and churches with all the arts of civilized life, being established among the nations of Africa, then remember and record, that this revolution in favour

of human happiness, was the effect of the labours—the publications—the private letters—and the prayers of ANTHONY BENEZET.*

I return from this digression, to address myself in a particular manner to you, VENERABLE SAGES and FELLOW-CITIZENS in the REPUBLIC OF LETTERS. The influence of Philosophy, we have been told, has already been felt in course. To increase, and complete, this influence, there is nothing more necessary, than for the numerous literary societies in Europe and America to add the SCIENCE OF MORALS to their experiments and inquiries. The godlike scheme of Henry IV. of France, and of the illustrious queen Elizabeth, of England, for establishing a perpetual peace in Europe, may be accomplished without a system of jurisprudence, by a confederation of learned men and learned societies. It is in their power, by multiplying the objects of human reason, to bring the monarchs and rulers of the world under their subjection, and thereby to extirpate war, slavery, and capital punishments, from the list of human evils. Let it not be suspected that I detract, by this declaration, from the honour of the Christian religion. It is true, Christianity was propagated without the aid of human learning; but this was one of those miracles, which was necessary to establish it, and which, by repetition, would cease to be a miracle. They misrepresent the Christian religion, who suppose it to be wholly an internal revelation, and addressed only to the moral faculties of the mind. The truths of Christianity afford the greatest scope for the human understanding,

* This worthy man was descended from an ancient and honourable family that flourished in the court of Louis XIV. With liberal prospects in life, he early devoted himself to teaching an English school; in which, for industry, capacity, and attention to the morals and principles of the youth committed to his care, he was without an equal. He published many excellent tracts against the African trade, against war, and the use of spirituous liquors, and one in favour of civilizing and christianizing the Indians. He wrote to the queen of Great Britain, and the queen of Portugal, to use their influence in their respective courts to abolish the African trade. He also wrote an affectionate letter to the king of Prussia, to dissuade him from making war. The history of his life affords a remarkable instance, how much it is possible for an individual to accomplish in the world; and that the most humble stations do not preclude good men from the most extensive usefulness. He bequeathed his estate (after the death of his widow), to the support of a school for the education of negro children, which he had founded and taught for several years before he died. He departed this life in May, 1784, in the seventy-first year of his age, in the meridian of his usefulness, universally lamented by persons of all ranks and denominations.

and they will become intelligible to us, only in proportion as the human genius is stretched, by means of philosophy, to its utmost dimensions. Errors may be opposed to errors ; but truths, upon all subjects, mutually support each other. And perhaps one reason why some parts of the Christian revelation are still involved in obscurity, may be occasioned by our imperfect knowledge of the phenomena and laws of nature. The truths of philosophy and Christianity dwell alike in the mind of the Deity, and reason and religion are equally the offspring of his goodness. They must, therefore, stand and fall together. By reason, in the present instance, I mean the power of judging of truth, as well as the power of comprehending it. Happy era ! when the divine and the philosopher shall embrace each other, and unite their labours for the reformation and happiness of mankind !

ILLUSTRIOUS COUNSELLORS and SENATORS of Pennsylvania !* I anticipate your candid reception of this feeble effort to increase the quantity of virtue in our republic. It is not my business to remind you of the immense resources for greatness, which nature and Providence have bestowed upon our state. Every advantage which France has derived from being placed in the centre of Europe, and which Britain has derived from her mixture of nations, Pennsylvania has opened to her. But my business, at present, is to suggest the means of promoting the happiness, not the greatness, of the state. For this purpose, it is absolutely necessary that our government, which unites into one all the minds of the state, should possess, in an eminent degree, not only the understanding, the passions, and the will, but, above all, the moral faculty and the conscience of an individual. Nothing can be politically right, that is morally wrong ; and no necessity can ever sanctify a law, that is contrary to equity. VIRTUE is the soul of a republic. To promote this, laws for the suppression of vice and immorality will be as ineffectual, as the increase and enlargement of jails. There is but one method of preventing crimes, and of rendering a republican form of government durable, and that is, by disseminating the seeds of virtue and knowledge through every part of the state, by means of proper modes and places of education, and this can be done effectually only

* The president and supreme executive council, and the members of the general assembly of Pennsylvania, attended the delivery of the oration, in the hall of the University, by invitation from the Philosophical Society.

by the interference and aid of the legislature. I am so deeply impressed with the truth of this opinion, that were this evening to be the last of my life, I would not only say to the asylum of my ancestors, and my beloved native country, with the patriot of Venice, "Esto perpetua," but I would add, as the last proof of my affection for her, my parting advice to the guardians of her liberties, "To establish and support PUBLIC SCHOOLS in every part of the state."

THE END.

